

LISTING OF THE CLAIMS:

1. (previously presented) A plasma CVD apparatus comprising a substrate processing zone with a deposition substrate area disposed therein, a plasma generating zone for generating plasma of a first gas, and a plasma confining electrode for separating the substrate processing zone and the plasma generating zone and confining the first gas and having holes for passing the first gas containing neutral radicals from the first gas plasma such that the first gas is uniformly supplied to the substrate processing zone, wherein

the plasma confining electrode has a hollow structure, accommodates horizontal gas dispersing plates within the hollow structure for uniformalizing a second gas in the plasma confining electrode, and has holes for introducing the second gas into the substrate processing zone to form a desired film on a deposition substrate located on the deposition substrate area by gas phase chemical reaction of the first gas containing neutral radicals and the second gas with each other; and

the vertical distance between the holes for introducing the second gas into the substrate processing zone and the deposition substrate is no longer than 1,500 times the mean free path λ_g of a blend gas of neutral radicals and the second gas in the substrate processing zone at the time of film formation,

wherein the first gas and the second gas do not intermix within the hollow structure.

2. (original) The plasma CVD apparatus according to claim 1, wherein a plurality of parallel dispersing panels are disposed as the afore-said dispersing plates in the plasma confining electrode.

3. (cancelled)

4. (previously presented) A plasma CVD apparatus comprising a substrate processing zone with a deposition substrate area disposed therein, a plasma generating zone for generating plasma of first gas, and a plasma confining electrode for separating the substrate processing zone and the plasma generating zone and confining the first gas and having holes for passing first gas containing neutral radicals from the first gas plasma, wherein

the plasma CVD apparatus further comprises a gas introducing member disposed between the plasma confining electrode member and the deposition substrate and having a plurality of holes, through which a second gas is introduced into the substrate processing zone to form a desired film on a deposition substrate by gas phase chemical reaction between the first gas containing neutral radicals and the second gas and a hole through which the first gas containing the neutral radicals is uniformly supplied to the substrate processing zone; and

the gas introducing member has a hollow structure, accommodates dispersing plates within the hollow structure for uniformizing the second gas in the gas introducing member and the hole for introducing the second gas into the substrate processing zone is vertically spaced apart by a distance no longer than about 1,500 times the mean free path λ_g in the substrate processing zone,

wherein the first gas and the second gas do not intermix within the hollow structure.

5. (previously presented) The plasma CVD apparatus according to claim 4, wherein a plurality of parallel dispersing plates are disposed as the afore-said dispersing planes in the gas introducing member.

6. (cancelled)

7. (previously presented) The plasma CVD apparatus according to claim 1, wherein,

the second gas is a neutral gas,

the plasma confining electrode has horizontal upper and lower surfaces and vertical end surfaces,

the lower surface has the holes for introducing the neutral gas into the substrate processing zone,

the plasma confining electrode has a neutral gas supply line connection at one of the vertical end surfaces to allow the neutral gas to be supplied from the neutral gas supply line, via

the vertical end surface, into the hollow structure of the plasma confining electrode.

8. (previously presented) The plasma CVD apparatus according to claim 4, wherein,

the second gas is a neutral gas,

the gas introducing member has horizontal upper and lower surfaces and vertical end surfaces,

the lower surface has the holes for introducing the neutral gas into the substrate processing zone,

the gas introducing member has a neutral gas supply line connection at one of the vertical end surfaces to allow the neutral gas to be supplied from the neutral gas supply line, via the vertical end surface, into the hollow structure of the gas introducing member.

9. (previously presented) The plasma CVD apparatus according to claim 1, wherein,

the second gas is a neutral gas,

the plasma confining electrode has horizontal upper and lower surfaces and two opposing vertical end surfaces,

the lower surface has the holes for introducing the neutral gas into the substrate processing zone,

the plasma confining electrode has two neutral gas supply line connections, one supply line connection at each of the vertical end surfaces to allow the neutral gas to be supplied

from the neutral gas supply lines, via both the vertical end surfaces, into the hollow structure of the plasma confining electrode.

10. (previously presented) The plasma CVD apparatus according to claim 4, wherein,

the second gas is a neutral gas,

the gas introducing member has horizontal upper and lower surfaces and two opposing vertical end surfaces,

the lower surface has the holes for introducing the neutral gas into the substrate processing zone,

the gas introducing member has two neutral gas supply line connections, one of the supply line connections at each of the two vertical end surfaces to allow the neutral gas to be supplied from the neutral gas supply lines, via both vertical end surfaces, into the hollow structure of the gas introducing member.